



Serial No. 10/765,721

IN THE SPECIFICATION:

Please replace paragraph number [0002] with the following rewritten paragraph:

[0002] State of the Art: Tubular members have been ~~prevalently~~ used prevalently for many years in a variety of applications. In general, tubular members have been used as containers for shipping, storing, and carrying various items. As such, it is typically desirable to close both ends of the tubular member to form a closed container therein. Furthermore, it may be desirable to selectively open and close the container more than one time. Thus, it would be beneficial for an end closure device of a tubular member to be easily installed and removed, while also providing secure closure.

Please replace paragraph number [0010] with the following rewritten paragraph:

[0010] In other aspects of a closure element of the present invention, at least one of a locking structure and a biasing element may be configured for influencing the movement or position of the at least one movable ~~structures~~ structure. Also, the closure element may be sized and configured to fit substantially within the bore of a tubular member, or alternatively, to fit entirely within the bore of a tubular member.

Please replace paragraph number [0029] with the following rewritten paragraph:

[0029] FIG. 6A shows a top elevation view of the closure element shown in FIGS. 1A-1C including a locking element; ~~and~~

Please insert paragraph number [0029A] directly below paragraph number [0029] along with the following paragraph:

[0029A] FIG. 6B shows a side cross-sectional view of the closure element shown in FIG. 6A;

Please replace paragraph number [0030] with the following rewritten paragraph:

[0030] FIG. ~~6B~~ 6C shows a top elevation view of the closure element shown in FIGS. 1A-1C including a biasing ~~element~~ element; and

Please insert paragraph number [0030A] directly below paragraph number [0030] along with the following paragraph:

[0030A] FIG. 6D shows a side cross-sectional view of the closure element shown in FIG. 6C.

Please replace paragraph number [0031] with the following rewritten paragraph:

[0031] The present invention comprises a closure element sized and configured to fit at least partially within the bore of a tubular member. Thus, while the embodiments illustrated and described herein may be specific, with respect to the illustrated geometries, it should be recognized that the present invention is not limited to the particular embodiments or configurations described herein, but, rather, other suitable geometries may be used. Furthermore, as one of ordinary skill in the art will ~~recognize~~, recognize that there are combinations of and alterations to the embodiments described herein that are encompassed by the present invention.

Please replace paragraph number [0032] with the following rewritten paragraph:

[0032] Turning to FIGS. 1A-1C, FIG. 1A shows a perspective view of a closure element 10 of the present invention, FIG. 1B shows a side cross-sectional view of closure element 10, and FIG. 1C shows a top elevation view of closure element 10. Closure element 10 generally comprises a radially extending base 16 from which side walls 12 longitudinally extend, forming end surface 15. Side walls 12 may be shaped so as to substantially close a bore of a tubular member as described hereinbelow. Accordingly, the body of the closure element 10 may have a radial periphery that substantially fits within or conforms to the bore of an associated tubular member. Thus, the radial outer surfaces of side walls 12 may be ~~semi~~-semicircular, as shown in FIGS. 1A and 1C, or may comprise other shapes corresponding to an associated tubular

member bore such as: generally rectangular, generally triangular, or otherwise generally polygonal.

Please replace paragraph number [0033] with the following rewritten paragraph:

[0033] In addition, movable structures 20 may extend longitudinally from base 16 by way of attachment walls 24, respectively. Movable structures 20 may be circumferentially positioned about the periphery of closure element 10 symmetrically or asymmetrically. Thus, as shown in FIGS. 1A-1C, movable structures 20 may be positioned substantially circumferentially opposite one another, or, put another way, circumferentially separated by about 180°. Each of movable structures 20 may comprise depression 25 formed by a surrounding wall 21 and lower wall 33 (FIG. 1B), respectively. The radially outer portion of ~~each~~ each of surrounding walls 21 may exhibit a substantially congruent or conformal shape as the bore of a tubular member within which it is to be disposed. For instance, the radially outer portion of ~~each of~~ of the surrounding walls 21 may have a radius of curvature substantially equal to that of side walls 12 and may be concentric in relation thereto. Also, apertures 32 may be formed through the radially inner portion of each of surrounding walls 21, thus forming upper radially inner sections 30 of ~~each of~~ of the surrounding walls 21.

Please replace paragraph number [0034] with the following rewritten paragraph:

[0034] ~~Each of~~ of the movable structures 20 may further ~~comprise~~ comprise an engagement feature 22, comprising an outwardly radially extending protrusion and corresponding recess 23 formed proximate thereto and complementary therewith, respectively. Engagement ~~structures~~ features 22 may be sized and configured for insertion within a bore of a tubular member. Particularly, engagement ~~structures~~ features 22 may comprise tapered surface 34, which may facilitate forcing of closure element 10 ~~within~~ within, or removing closure element 10 ~~from~~ from, a bore of a tubular member that is sized substantially identically to the outer radial surfaces of side walls 12. Further, engagement ~~structures~~ features 22 may each include a radially extending lip 35, which may be configured to abut against a wall structure of the tubular member.

Please replace paragraph number [0039] with the following rewritten paragraph:

[0039] More specifically, bases 16 of closure elements 10 each may extend substantially transversely in relation to bore 58, but may be positioned longitudinally therein, at a distance from each of ends 56 and 57, respectively. Thus, closure elements 10 may substantially close bore 58 at a longitudinal position located therein. As shown in FIG. 3A, end surface 15 of closure element 10 may be substantially longitudinally aligned with end 56 of tubular member 50. Accordingly, closure elements 10 may substantially fit within the longitudinal extent of tubular member 50. Preferably, closure elements 10 may entirely fit within the bore 58 of tubular member 50. Such a configuration may protect closure elements 10 from damage.

Please replace paragraph number [0046] with the following rewritten paragraph:

[0046] FIG. 3C shows an enlarged partial cross-sectional view of container 51, which shows closure element 10 disposed within bore 58 of tubular member 50 wherein engagement feature 22 is positioned so as to facilitate or allow movement of closure element 10 within bore 58 of tubular member 50. Such an arrangement may occur when placing closure element 10 within bore 58 or when removing closure element 10 from bore 58. For instance, a force, labeled F may be applied to upper radially inner section 30 of surrounding wall 21 to cause attachment wall 24 to bend, as shown in FIG. 3C. Such a position of engagement feature 22 may facilitate movement of closure element 10 within bore 58 of tubular member 50, since radial interference with wall structure 60 no longer exists. Force F may be generally oriented radially inwardly, depending on the configurations of movable structure 20, closure element 10, and the mechanical properties of each. Also, other forces (not shown) in other orientations may be applied to ~~moveable~~ movable structure 20, in accordance to the desired movement of closure element 10.

Please replace paragraph number [0050] with the following rewritten paragraph:

[0050] The present invention contemplates, generally, that at least one engagement feature may be positioned along the periphery of a closure element, without limitation. For

instance, FIGS. 4A and 4B show closure element 110, in perspective and side cross-sectional views, respectively, including a radially extending base 116 from which side walls ~~112~~ 112, forming an end surface 115, longitudinally extend as well as engagement feature 122 disposed in mechanical communication with movable structure 120. Movable structure 120 may be configured for applying, transmitting, or communicating a generally radially inwardly directed force to engagement feature 122 so as to bias or displace engagement feature 122 so as to disengage engagement feature 122 from a corresponding wall structure ~~(not~~ (not shown).

Please replace paragraph number [0052] with the following rewritten paragraph:

[0052] Thus, more generally, and conceptually, a closure element of the present invention may include a finger cup sized and configured for accepting a finger of a person therein. More specifically, a finger cup may be configured as depression 25 of closure element 10 or as aperture ~~120~~ 121 of closure element 110. In addition, an engagement feature of the present invention may be resiliently cantilevered in relation to the base that carries it. More particularly, engagement features ~~20~~ 22 are cantilevered in relationship to the base 16 by way of attachment walls 24. Similarly, engagement feature 122 is cantilevered in relationship to base 116 by way of attachment wall 123. In such a configuration, ~~the~~ each of attachment walls 24 or 123 may be characterized as a leaf spring that mechanically affixes ~~the~~ each of engagement ~~feature~~ features 22 and 122 to ~~the~~ each of base 16 and 116, respectively. Thus, the cantilevered relationship between an engagement feature and a base carrying same may be resilient.

Please replace paragraph number [0055] with the following rewritten paragraph:

[0055] In another embodiment of a closure element and container containing same according to the present invention, an engagement feature of a closure element may comprise an aperture, while the wall structure of a tubular member may comprise an inwardly extending radial protrusion. Further, the engagement structure of the closure element may be sized, positioned, and configured to cooperatively engage a wall feature formed in the wall of a tubular

member. Such a configuration may provide an arrangement that may affix, retain, or position a closure element that is assembled within a bore of a tubular member. More particularly, FIG. 5A shows a perspective view of closure element 210, comprising a radially extending base 216 having generally semi-semicircular side walls 212 longitudinally extending therefrom, forming an end surface 215. Further, FIG. 5B shows a side cross-sectional view of closure element 210.

Please replace paragraph number [0057] with the following rewritten paragraph:

[0057] Thus, closure element 210 may be configured to substantially close the bore of a tubular member when disposed therein. For instance, FIG. 5C shows such a tubular member 250 of the present invention in a perspective view. Tubular member 250 includes outer surface 252 and inner surface 254, the inner surface forming bore 258, which extends between longitudinal ends 256 and 257. Tubular member 250 may also include wall structures 260, proximate to longitudinal ends 256 and ~~258~~ 257, wherein each wall structure 260 comprises a radially inwardly extending protrusion. Wall structures 260 may be formed by punching, bending, or as otherwise known in the art. As discussed above, tubular member 250 may comprise an extruded material or a rolled material. For instance, tubular member 250 may comprise aluminum, steel, plastic, cardboard, or paper.

Please replace paragraph number [0060] with the following rewritten paragraph:

[0060] ~~Each of the~~ engagement features 222 of closure elements 210 may be configured to cooperatively engage, respectively, a corresponding wall structure 260 of tubular member 250 so as to retain, lock, position, or affix the closure element 210 in relation thereto. Explaining further, an engagement feature 222 may receive at least a portion of a radially inwardly extending protrusion comprising wall structure 260 so as to radially interfere or overlap with one another. In other words, corresponding engagement features 222 and wall structures 260 may occupy at least a common radial position.

Please replace paragraph number [0064] with the following rewritten paragraph:

[0064] Furthermore, as in designing a closure element of the present invention, attachment walls 224 may be sized and configured to selectively adjust or determine the magnitude of force necessary to displace either or both ~~of~~ of the movable structures 220. It may be advantageous to select dimensions and mechanical properties of attachment walls 224 such that a person's finger, thumb, or combinations thereof may be used to displace movable structures 220 by placing a finger into one depression 225 and placing a thumb into the other depression 225 and squeezing the movable structures 220 toward one another.

Please replace paragraph number [0065] with the following rewritten paragraph:

[0065] In yet another aspect of the present invention, it may be desirable to include other structures that influence the movement of or position of movable structures of a closure element. For instance, FIGS. 6A and 6B show, respectively, a top elevation view and a side cross-sectional view of the closure element 10 shown in FIGS. 1A-1C, including locking structure 46 disposed between the inner radial portions of surrounding walls 21 of each ~~of~~ of the movable structures 20. More specifically, ends 48 (FIG. 6B) of locking structure 46 may engage or fit into apertures 32 (FIGS. 1A and 1B) of movable structures 20. Locking structure 46 may resist radially inward movement of movable structures 20, or, alternatively, may displace movable structures 20 radially outwardly, according to the size of locking ~~element~~ structure 46 in relation to the available space between movable structures 20. Such a configuration may allow for the movable structures 20 to be relatively easily moved and, therefore, closure element 10 to be easily installed within and removed from a bore of a tubular member. On the other hand, easy movement of movable structure 20 may facilitate unintended or inadvertent disengagement of engagement structure 22 thereon, which may further cause removal of closure ~~element~~ element 10 from a bore of a tubular member. However, upon installation of locking structure 46, locking structure 46 may substantially inhibit inadvertent removal of closure element 10 from a bore of a tubular member.

Please replace paragraph number [0066] with the following rewritten paragraph:

[0066] Also, in a further aspect of the present invention, FIGS. 6C and 6D show, respectively, a top elevation view and a side cross-sectional view of the closure element 10 shown in FIGS. 1A-1C, including biasing element 44 disposed between end structures 47, wherein the end structures 47 engage or fit into apertures 32 (FIGS. 1A and 1B) of surrounding walls 21 of each ~~of~~ of the movable structures 20. Biasing element 44, which may comprise a compression spring, may be configured to bias against radially inward movement of movable structures 20, or, alternatively, may bias movable structures 20 radially outwardly, according to the configuration of biasing element 44 in relation to the available space between movable structures 20. Such a configuration may substantially inhibit inadvertent removal of closure element 10 from a bore of a tubular member, as described hereinabove in relation to locking structure 46.